

Attorney Dkt. No. P-15149
Serial No. 09/431,159
Filed: November 1, 1999

REMARKS

Upon entry of this amendment, claims 1 and 11-12 are pending in the application. Claim 1 is an independent claim drawn to an apparatus for processing heavy hydrocarbon feed, and the newly submitted claims depend therefrom. Claim 1 has been amended to further clarify what the Applicant considers to be the invention and to clarify the distinctions between the inventive subject matter and the prior art references. Applicant further submits that the amendments to the claims do not add new matter within the meaning of 35 U.S.C. §132. The amendments to the claims have been made in order to advance prosecution of the application.

Further, Applicant would like to reiterate the position espoused in the previously-filed response. In particular, Applicant respectfully submits that no combination of the cited references, van Klinken et al., van Donken et al. and Kwant et al., discloses or teaches the presently claimed subject matter. In the present claims, all of the asphaltenes are removed prior to the thermal cracking step. This removal of the asphaltenes from the feed, and those produced by the thermal cracking itself, allows for the **total conversion** of both the **deasphalted oil and vacuum gas oil** feeds to light products and some heavy asphaltenes through thermal, **non-catalytic** cracking.

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None of the cited references teaches the above apparatus and its features, and therefore the references do not suggest or teach one of ordinary skill in the art the presently claimed invention.

In fact, Applicants respectfully submit that each of the references teaches the opposite, that the references teach the thermal cracking of the original feed, and in some cases, the recycle. For instance, the first step in the van Klinken et al. process is to thermally crack the feed, which contains the asphaltenes.

Therefore, Applicant emphasizes that it is the removal of asphaltenes before thermal cracking that enables the successful operation of the presently claimed invention. It is the thermal cracking of both the deasphaltered oil and the gas oils **without the danger of coking the thermal crackers** that distinguishes the present invention over the cited prior art.

CONCLUSION

In view of the foregoing and the previously filed response, applicants respectfully request the Examiner to reconsider and withdraw the all pending rejections, and to allow all of the claims pending in this application.

If the Examiner has any questions or comments regarding this matter, he is welcomed to contact the undersigned attorney at the

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below-listed number and address.

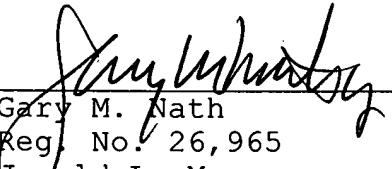
Respectfully submitted,

NATH & ASSOCIATES

Date: November 24, 2003

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